



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

25

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,723	10/28/2003	Jamal Sarraf	PD-970227B	5541
7590	01/29/2008		EXAMINER	
HUGHES ELECTRONICS CORPORATION CORPORATE PATENTS & LICENSING BLDG. R11, MAIL STATION A109 P.O. BOX 956 EL SEGUNDO, CA 90245-0956			NGUYEN, TUAN HOANG	
			ART UNIT	PAPER NUMBER
			2618	
			MAIL DATE	DELIVERY MODE
			01/29/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/695,723	SARRAF ET AL.
	Examiner Tuan H. Nguyen	Art Unit 2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 06 November 2007.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-5 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 11/06/2007 have been fully considered but they are not persuasive.

In response to Applicant's remark on pages 4-6, Applicant admit that Acampora et al. (US PAT. 4,425,639 hereinafter "Acampora") reference cited by the Examiner at col. 4 lines 45-50 teaches "call blockage in a spot-beam region when the total capacity is exceeded". However, there is no suggestion for what to do after the blockage occurs when transmissions from one or more multiple spot beams whose transmission capacity has been exhausted. There is no teaching or suggestion for using wide area beams when blockage occurs in multiple spot beams or point-to-point transmissions". Examiner respectfully disagrees with the Applicant argument. Applicant should refer to Acampora reference (col. 2 lines 5-16 and col. 9 lines 5-10) where as described "the invention is also applicable to multiple scanning beam systems. Although for such a system an efficient traffic assignment is possible, frequency hopping may be required for the ground stations in order to prevent undue degradation of blocking probability and if frequency hopping is provided, then as T (traffic matrix) changes (i.e., transmission capacity has been exhausted), ground stations 16 can be reassigned to different channels to efficiently accommodate the change. Thus, essentially the same trunking efficiency and transponder utilization efficiency as for a single operation can be obtained". Therefore, the teaching of the prior art references still read on.

Base on the above rational, it is believed that the claimed limitations are met by the references submitted and therefore, the rejections are maintained.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action: ..

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosen (US PAT. 4,831,619) in view of Acampora (US PAT. 4,425,639 hereinafter, "Acampor").

Consider claim 1, Rosen teaches a method for improving utilization of satellite capacity of a satellite system that uses multiple uplink and downlink spot beams (col. 2 lines 19-40), comprising: integrating an area-wide broadcast (fig. 9 zones 31, 33, 35, and 37) downlink beam to be used to support point-to-point transmissions (col. 4 lines 30-41).

Rosen does not explicitly show that downlink beam to be used to support point-to-point transmissions of one or more of the multiple spot beams whose transmission capacity has been exhausted.

In the same field of endeavor, Acampora teaches downlink beam to be used to support point-to-point transmissions of one or more of the multiple spot beams whose transmission capacity has been exhausted (col. 4 lines 21-59).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use, downlink beam to be used to support point-to-point transmissions of one or more of the multiple spot beams whose transmission capacity has been exhausted, as taught by Acampora, in order to provide the uplink spot-beams are frequency-channelized into a plurality of equal capacity channels and the downlink spot-beams each have their channels concentrated into a lesser number of higher bit-rate wider bandwidth transmission channel.

Consider claim 2, Rosen further teaches allocating a full primary spectrum of one polarization to uplink and downlink spot beams for point-to-point transmissions (col. 4 lines 58-67), and allocating a full primary spectrum of a polarization opposite to the one polarization to the area-wide broadcast downlink beam for broadcast transmissions (col. 4 lines 64-67).

Consider claim 3, Rosen further teaches assigning the full primary spectrum for broadcast transmissions in minimum-resolution broadcast bands (col. 6 line 66 through col. 7 line 2).

Consider claim 4, Rosen further teaches the minimum-resolution broadcast bands are assigned to any and all uplink spot beams in any combination as configured by a network control center (col. 13 lines 47-62).

Consider claim 5, Rosen further teaches each one of the multiple uplink and downlink spot beams can access the full primary spectrum for broadcast transmissions in increments of one minimum-resolution broadcast band and can transmit on at least (col. 15 lines 33-58).

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any response to this action should be mailed to:

Mail Stop _____ (Explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Facsimile responses should be faxed to:

(571) 273-8300

Hand-delivered responses should be brought to:

Customer Service Window

Randolph Building

401 Dulany Street

Alexandria, VA 22313

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan H. Nguyen whose telephone number is (571)272-8329. The examiner can normally be reached on 8:00Am - 5:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Maung Nay A. can be reached on (571)272-7882882. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Art Unit: 2618

Information Consider the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan Nguyen
Examiner
Art Unit 2618


NAY MAUNG
SUPERVISORY PATENT EXAMINER